

6L6GC Guitar Test Report 1998

INTRODUCTION:

OBJECT OF THE TEST

6L6 types are one of the biggest selling valves in American history. These valves are still the favoured choice of many manufactures. We wanted to see if the current production types could compete with some of the finest valves ever made.

EQUIPMENT USED

The amplifiers used was a 70 's Fender Twin reverb fitted with J.B.L's. A 70's Fender Twin reverb fitted with original Fender blue back speakers. A Mesa/Boogie Mark 4 combo.

Guitars used where a 1973 Fender stratocaster, 1980 Yamaha SA 2000S semi acoustic and a 1980 Gibson Les Paul Standard.

R.C.A 6L6GC Where used as the reference. The Fender twin fitted with J.B.L where used to establish if untested valves proved to be Microphonic. All Valves were run on our special test rig at 500vdc 500volt plate and screen to establish reliability.



HOW WE TESTED:

R.C.A 6L6GC BLACK PLATE

The R.C.A's handled ever situation with great authority . From Boogie hard Rock to the steely Fender twang These where a true reference. The bass was big with perfect balance and definition between top, middle and bottom. The sonic presentation was full and as the valve when into distortion which was about half

way one the Fenders channel volume control it was sweet and musical. The amp sounded huge which is something I always look for in a valve. Not a hint of harshness even when saturated . It makes you want to play.

CHINESE 6L6GC

This valve is offered by many amplifier manufactures and many designer valve companies All I can say is why? after finding a choice quad, after 10 valves failed a simple burn in test the sound quality was abysmal. The sound was very harsh and brittle and the valve compressed very early. The bass was loose and fizzy and in the Fender with J.B.L I found myself thinking that a Transistor amp would sound better. Then the amp went down.

Cathode/heater insulation was found to be poor and the valves where found to be gassy whichever brand name was placed on them. They also where fairly Microphonic.

Stocking this valve does not have any commercial sense as they cannot operate at normal guitar amp plate voltages. So Our advice is don't bother with these.

Sovtek 5881/5881WXT

This is the industry standard which is fitted as standard by Fender, Marshall and Boogie.

The valve a warm tone but lacks sound stage or harmonic detail of the R.C.A.

When pushed hard tends to go lose control and can sound muddy. The fine detail was blurred compared to other valves especially with the J.B.L loaded twin. The Sovteks Performed very well on the Microphony test. Only a few Valves failed the burn in test.

Sovtek 6L6WXT PLUS

The valve differs from the 5881 by having larger plate dimensions and improved grids to allow higher power

handling. The valve performed very well in the microphonic tests and has more top end clarity than The 5881. Mid range was still muffled when pushed . Bass response was the same as the 5881 soft and sweet. In the Boogie and Twins we noticed a little more detail and clarity than the 5881. This, however, was not as good as the majority of other valves in this test in the clarity department.

Sylvania 6L6GC U.S.A

These Sylvania valves which are late 60's early 70's production sounded full and rich. No problems on the high plate volt tests solid as a rock. No problems with microphony. The bass was nice a tight with that classic warm sound associated with Sylvania . In the Fender amps they sounded a lot brighter than the Boogie but in no way where harsh. Mid range not as detailed as the R.C.A. but The valves where very punchy and forward sounding.

Imaging and presentation were far better than the Sovteks Great choice for all applications if you what that Fender twang.

G.E 6L6GC EARLY TYPE

The early type has a more rounded appearance and is slightly smaller than later production items. The sound stage and imaging is huge. This making the notes fly out of the amp.

Bass was deep rich and plentiful and equally as extended as the R.C.A. The famous strat voice was not lost even under driven conditions. The top end had a rich bell like clarity which begged you to sustain a note. In the Boogie, which came with poor quality Chinese 6L6 valves fitting the G.E gave the amp a richer fatter tone ,which I thought sounded better than the R.C.A's. The sound stage made the Boogie sound like a stack. Improvement in clarity and mid range sparkle shone out of the J.B.L twin. My conclusion must be that these

G.E are one of the greatest 6L6 GC of all time and come with my strongest recommendation.

TUNG-SOL 5881

The valve that gave the Fender bassman it's true Voice the original valve in the original bassman. The bass is very tight well defined and in your face. The valve is well balanced and has the classic midrange twang. This gave less power than the Sylvania, G.E or R.C.A but has superb drive and early distortion. The sound stage makes the amp sound bigger than it really is. A great sounding valve that deserves it classic status.

PHILIPS 6L6WGB & HARMA SB-6L6

This American made military specification valve has all the tight bass and midrange clarity and twang of the Tung-Sol and is some what of an bargain. The valve has a very musical break up with a big soundstage. The dominant mid range response is uniquely classic Fender with no harshness. The valve a little less defined than the Tung-Sol and is less aggressive than original Tung-Sol but warmer with a touch less bass. This valve is superb in Fenders if you require early distortion at club volume levels. It also has all the mid range honk you could want. We have found these to be an ideal choice in reissue Baseman's, Boogies and Soldarno.

The Harma SB-6L6 is a specially selected version of the Philips.

HARMA S.T.R 6L6GC

This is the best current production 6L6. The glass envelope is made from high quality heavy grade glass made the valve the most unmicrophonic of any we tested. The gold plated grids and special plate alloy gives this valve improved plate dissipation and greater stability ant high voltages. The valves bass response is deep and carries more weight than the RCA In Quad 2 the bass is easily equal if not better than the Original G.E.C KT66.

When pushed into distortion the amp sounded full and vibrant. This Valve was only just second to the G.E in sound staging. The treble response is full smooth and creamy. The sustain was long and pleasing with punch and definition. One of customers who has an original 1989 Soldarno SLO 100 head took out the Philips/ Sylvania S.T.R 387 and will only fit the Harma S.T.R 6L6. This for the record, is the best sounding combination that I have heard. Ultimate rock tone The Harma even tames this amps bright presentation. This valve gets our highest recommendation.

SVETLANA 6L6GC

The Svetlana has a growing list of name professional users. The specification claim design based on the Famous Philips / Sylvania S.T.R 387. The extra thick mica spacer did make this valve less prone to Microphony. In all amps the balance was perfect just like the RCA Bass was crisp and clear but not as deep as the Harma. Distortion was sweet with good punch. When pushed hard the valve never got muddy like the Sovteks and is in our opinion the second best current production item available behind the Harma.

PHILIPS/SYLVANIA S.T.R 387

We tested a number of the famed 387 Valves. In sound terms we could detect no difference between this and the Sylvania 6L6GC. Indeed this tube sounded brighter than it's earlier brother. Which I felt was over bright in the Twin fitted with J.B.L's

Same characteristics as the Sylvania and can be recommended.

RUSSIAN 6P3S

Many U.K valve dealers sell this valve under all sorts of numbers such as 6L6GT, 6L6GB, 6L6GC and even one world wide dealer has Even branded it KT66.

This valve does not like even moderate voltages therefore cannot be recommend

under any circumstances.

PHILIPS 7581A

This is a military long life 35 watt plate dissipation version of the S.T.R 387 . The bass was controlled mids clear and proud with nice balance. This valve is the cleanest sounding of all the 6L6 types. We strongly rate this valve for the big clean Fender sound as is a superb valve for bassists to fit.

G.E.C KT66

This valve was tried using a reissue Marshall blues breaker combo fitted with vintage 30 speakers. This was a simply awesome sounding set up. After trying the replica KT66 of CHINESE and G.T variety which did not happen at all. The G.E.C had it all. Control, deep bass with midrange beef and definition. This had the blues stamped all over it. The Les Paul was easily the best combination giving the sound balls and grit. Sustain was both clear and loud with the ability to produce long sustained notes with ease. These are not cheap But then again nor is a vintage Les Paul. With these valves you defiantly get what you pay for. The best of it type and a true legend.

CONCLUSION:

With the 6L6 valves the first step is to decide how you want the amp to sound in relation to your style of music.

The Russian 6P3S and the CHINESE 6L6 's are not worth fitting in guitar amps as they sound poor and most of them just don't work.

The Top two current production 6L6GC are the Harma S.T.R and Svetlana .

The Harma was a better Hi-Fi Valve and excelled in our original Quad 11.

The Harma had a bigger G.E sound stage presentation and was more vibrant.

The Harma tube easily ranks along side the U.S.A valves.

The real star of the U.S.A valves was the GE 6L6 early production and not surprisingly the RCA black plate.

The bass was not as deep as the RCA but then would you really notice when your Boogie or Fender is cranked up in your favourite club. I think not.

What the G.E had which won the day for me was the sound stage. The more you turned it up the bigger it got. No valve was as big as the G.E. The R.C.A was better balanced but I would gladly trade that for the forward slightly brighter sound of the G.E. The G.E. is pure Rock and Roll.

The Sylvania 6L6GC was another great valve, warm rich and full bodied. This was a great valve for the Fender twin. With the Strat in the out of phase position this was heaven. I just wish I had a real vintage strat as this was all tone.

The real revelation was the Harma SB-6L6. This tube is an American made military specification small bottle 6L6 Which has been stabilised at 500Vdc plate and screen then specially selected. The valve had less power than the other U.S.A items. They did have the most detail mid range presentation. The great thing is that it broke up earlier than the other U.S valves. The twins really benefited from these valves. Big fat distortion with taking your head off. I would recommend these to any club player. In the Mesa the Harma SB provided it with a nice break up with any amount of pre-amp distortion.